A composition comprising imidazoleacetic acid-ribotide (IAA-RP) and a pharmaceutically acceptable carrier.

A composition comprising imidazoleacetic acid-riboside (IAA-R) and a pharmaceutically acceptable carrier.

A composition comprising one or mor congeners of imidazoleacetic acid-ribotide or imidazoleacetic acid-riboside and a pharmaceutically acceptable carrier.

A method of regulating the biological activity of an imidazoline receptor comprising contacting said receptor with imidazoleacetic acid-ribotide.

A method of regulating the biological activity of an imidazoline receptor comprising contacting said receptor with imidazoleacetic acid-riboside.

6. A method of regulating the biological activity of an imidazoline receptor comprising contacting said receptor with imidazoleacetic acid-ribotide or imidazoleacetic acid-riboside congener.

An antibody which is capable of binding to an imidazoleacetic acid-ribotide or an imidazoleacetic acid-riboside.

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- 8. A method of diagnosing a disease or disorder characterized by an aberrant level of imidazoleacetic acid-riboside or imidazoleacetic acid-riboside in a subject, comprising measuring the level of imidazoleacetic acid-riboside or imidazoleacetic acid-ribotide in a sample derived from the subject, in which an increase or decrease in the level of imidazoleacetic acid-riboside or imidazoleacetic acid-ribotide, relative to the level of imidazoleacetic acid-riboside or imidazoleacetic acid-ribotide found in an analogous sample derived from a subject not having the disease indicates the presence of the disease or disorder.
- 9. The method of claim wherein the disease or disorder is hypertension.
- 10. The method of claim 8 wherein the disease or disorder is a psychiatric or neurological disorder.
- 11. The method of claim 8 wherein the disorder is a pancreatic disorder.
- 12. A method for assaying for compounds that modulate the activity of imidazoleacetic acid-riboside or imidazoleacetic acid-ribotide comprising:
 - (a) contacting a cell which expresses imidazoline receptors with imidazoleacetic acid-riboside or imidazoleacetic acid-ribotide in the presence of a test compound or a vehicle control; and

- (b) determining whether the test compound decreases the level of imidazoline receptor activation as compared to those cells contacted with a vehicle control.
- 13. The method of claim 12, wherein activation of the imidazoline receptor is assayed by measuring the level of arachidonic acid release.
- 14. The method of claim 12, wherein activation of the imidazoline receptor is assayed by measuring the level of insulin secretion.
- 15. The method of claim 12, wherein the activation of the imidazoline receptor is assayed by measuring the activation of K+/ATP channels.
- 16. A method for identifying compounds that bind to an imidazoleacetic acid-ribotide or imidazoleacetic acid-riboside comprising:
 - (a) preparing a reaction mixture comprising an imidazoleacetic acid-ribotide or imidazoleacetic acid-riboside and a test compound under conditions and for time sufficient to allow the components of the mixture to interact and bind;
 - (b) identifying the bound test compound.

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